

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A syringe for dispensing use with a fluid ~~susceptible to void formation when the syringe and the fluid are frozen and then thawed before dispensing~~, the syringe comprising:

a barrel including a first opening, a second opening from which the fluid is dispensed ~~after the fluid is thawed~~, a ~~substantially cylindrical~~ sidewall between said first and second openings, an inwardly-facing surface on said ~~substantially cylindrical~~ sidewall, and a plurality of axial grooves defined in said inwardly-facing surface, ~~and a tapered region narrowing from said substantially cylindrical sidewall toward said second opening~~, said inwardly-facing surface and said axial grooves configured to be contacted by the fluid ~~and to reduce the void formation in the fluid~~, said inwardly-facing surface centered about a longitudinal axis extending from said first opening to said second opening, and said axial grooves extending along said inwardly-facing surface substantially parallel to said longitudinal axis from a first location on said inwardly-facing surface proximate to said first opening to a second location on said inwardly-facing surface proximate to said second opening ~~tapered region~~; and

a piston disposed inside said sidewall of said barrel to define a fluid chamber between said piston and said second opening that is in fluid communication with said second opening, said piston having a periphery that provides a fluid seal with said axial grooves to inhibit fluid leakage from said fluid chamber between said piston and said inwardly-facing surface as said

piston is advanced toward said second opening to dispense the fluid from said fluid chamber through said second opening.

2. (Cancelled)

3. (Previously Presented) The syringe of claim 1 wherein said axial grooves provide an average surface roughness greater than about 0.1 microns.

4. (Previously Presented) The syringe of claim 4 wherein said surface roughness is greater than about 2.5 microns.

5. (Original) The syringe of claim 4 wherein said surface roughness is between about 2.5 microns and about 5.1 microns.

6. (Currently Amended) The syringe of claim 1 wherein said ~~substantially cylindrical~~ sidewall has a flexibility and said axial grooves provide a level of said surface roughness to cooperate with said flexibility of said substantially cylindrical sidewall to reduce void formation.

7. (Currently Amended) The syringe of claim 6 wherein said ~~substantially cylindrical~~ sidewall is formed from polypropylene, and said substantially cylindrical sidewall has a thickness ranging from about 0.019" and about 0.025".

8. (Currently Amended) The syringe of claim 6 wherein said flexibility depends upon a thickness of said ~~substantially cylindrical~~ sidewall and a material forming said substantially cylindrical sidewall.

9. (Currently Amended) The syringe of claim 1 further comprising:

a pressure sleeve capable of being placed in a surrounding relationship with said ~~substantially cylindrical~~ sidewall when the fluid is dispensed through said second opening.

10-17. (Cancelled)

18. (Currently Amended) The syringe of claim 1 wherein said inwardly-facing surface of said ~~substantially cylindrical~~ sidewall and said axial grooves include a plurality of surface features configured to increase a surface area over which said inwardly-facing surface is contacted by the fluid.

19. (Previously Presented) The syringe of claim 18 wherein said surface features comprise a surface texture.

20. (Previously Presented) The syringe of claim 19 wherein said surface texture provides an average surface roughness greater than 0.1 microns.

21. (Previously Presented) The syringe of claim 19 wherein the surface roughness ranges from about 2.5 microns to about 5.1 microns.

22. (Previously Presented) The syringe of claim 1 further comprising:
a fluid disposed within said barrel.

23. (Currently Amended) The syringe of claim 1 wherein said axial grooves extend substantially along the length of said ~~barrel~~ sidewall.

24. (Previously Presented) The syringe of claim 1 wherein said axial grooves have one of the following cross-sectional profiles:

- a) double shaped
- b) rounded U
- c) squared U
- d) hemispherical
- e) elongated
- f) V-shaped
- g) rounded V-shaped
- h) crescent shaped, and
- i) I-shaped.

25. (Previously Presented) The syringe of claim 1 wherein said axial grooves have a cross-sectional profile that increases a surface area over which said inwardly-facing surface is contacted by the fluid.

26. (Previously Presented) The syringe of claim 25 wherein said inwardly-facing is textured between said grooves to further increase the surface area over which said inwardly-facing surface is contacted by the fluid.

27. (Cancelled)

28. (Withdrawn) A method of using the syringe of claim 1, the method comprising:

filling the syringe with the fluid; and

freezing the syringe and the fluid.

29. (Withdrawn) The method of claim 28 further comprising:

thawing the syringe and the fluid; and

dispensing the fluid, after thawing, from the second opening of the syringe.

30. (New) The syringe of claim 1 wherein said axial grooves extend along said inwardly-facing surface along an entire length of said sidewall.

31. (New) The syringe of claim 1 wherein said axial grooves have an average depth dimensioned so that the piston has the peripheral fluid seal that inhibits fluid leakage between said piston and said inwardly-facing surface as said piston moves toward said second opening.

32. (New) A barrel for a syringe to be used with a piston and a fluid, the barrel comprising:
a sidewall having a first opening, a second opening from which the fluid is dispensed, a fluid chamber defined between the piston and said second opening that is in fluid communication with said second opening, and an inwardly-facing surface centered about a longitudinal axis extending from said first opening to said second opening; and

a plurality of axial grooves defined in said inwardly-facing surface and extending along said inwardly-facing surface substantially parallel to said longitudinal axis, said inwardly-facing surface and said axial grooves configured to be contacted by the fluid in the fluid chamber, said axial grooves configured to provide a fluid seal with a periphery of the piston to inhibit fluid leakage past the piston.